

**Agenda**  
**Uncertainty Workshop**  
**Friday, September 24, 2004**  
(Re-scheduled from 9/13/04 to 9/24/04 to avoid Hurricane Ivan)  
**B1 Auditorium, SFWMD Headquarter**  
3301 Gun Club Road, West Palm Beach, FL 33406

**9:30am – 10:00am**    Welcome: **Dr. Christine A. Shoemaker**  
Joseph P. Ripley Professor of Engineering  
School of Civil and Environmental Engineering  
Cornell University

**Morning Session** 10:00am – 11:45am

1. Effective use of models and observations through calibration, sensitivity analysis, and uncertainty Analysis
2. How are calibration, sensitivity analysis and uncertainty analysis used in environmental analyses?
3. What are the alternatives to sensitivity analysis and uncertainty analysis?
4. Limitations and possible disadvantages of sensitivity analysis and uncertainty analysis
5. What are the possible cost implications of alternative methods for calibration, sensitivity analysis, or uncertainty analysis?
6. How do we address uncertainties that are not directly related to parameter uncertainty such as data uncertainty?
7. Description of Prof. Shoemaker's National Science Foundation supported research applicable to this topic.
8. Applied Examples: (a) Wasantha Lal, (b) Jack Gwo, (c) Shoemaker.
9. Open Discussion:

**Afternoon Session** 1:15pm – 4:00pm

Part I: Sensitivity Analysis to Select Most Sensitive Parameters for Complex Models

Part II: Response Surfaces and Latin HyperCube Sampling for Calibration, Sensitivity Analysis, and Uncertainty Analysis of Computationally Expensive Functions

Part III: Extensions to Bayesian Analysis for Uncertainty Analysis of Computationally Expensive Functions

**\*\*The B1 Auditorium can hold 160 persons. To date, over 60 registrants have received (7) background materials for the workshop. If you are interested in uncertainty analysis, you can just come. If you want the background materials, please email [gshih@sfwmd.gov](mailto:gshih@sfwmd.gov)**